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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,701	01/14/2004	Robert M. Fuerst	A1-051 CON1 US	4471
23683	7590	02/24/2005	EXAMINER	
MOLEX INCORPORATED 2222 WELLINGTON COURT LISLE, IL 60532			NGUYEN, PHUONGCHI T	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8A

<b>Office Action Summary</b>	<b>Application No.</b> 10/757,701	<b>Applicant(s)</b> FUERST ET AL.	
	<b>Examiner</b> Phuongchi Nguyen	<b>Art Unit</b> 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 25-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 25-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/14/04</u> . | 6) <input type="checkbox"/> Other: ____  |

☒ Attachment 1

### **DETAILED ACTION**

1. This application discloses and claims only subject matter disclosed in prior Application No. 09/737265, filed 12/13/2000, and names an inventor or inventors named in the prior application. Accordingly, this application may constitute a continuation or division. Should applicant desire to obtain the benefit of the filing date of the prior application, attention is directed to 35 U.S.C. 120 and 37 CFR 1.78.

2. Applicant's Preliminary amendment of January 14, 2004 is acknowledged. It is noted that claims 2-24 are canceled. New claims 25-41 are added.

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 7 of US Patent 6688911B2.

Although the conflicting claims are not identical, they are not patentably distinct from each other because Claim 1 of US Patent 6688911B2 contains substantially all of the limitations of claim 7 except for the male body member and the spring means. It would have been obvious to delete the additional structural features if they were deemed unnecessary.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 25, 30, 32 and 39-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al (US5297968).

In regard to claim 1, Johnson et al discloses (attachment 1) a connector assembly comprising a male connector (A) including a relatively rigid male body member (11) having an edge (B) about which the flexible circuit (16) is wrapped with the first conductors (on 16) of the circuit (16) facing away from the body member (11) at the edge (B) thereof; and an adapter (C) including a first receptacle (D) for receiving the male connector (A) inserted edge-first into the first receptacle (D), and a second receptacle (E) for receiving the second conductors (21) in

position for engaging the first conductors of the flexible circuit (16) at the edge (B) of the male body member (11).

In regard to claim 25, Johnson et al further discloses (attachment 1) a connector assembly comprising the male body member (11) having a thickness dimension (T1) defined by a separation distance between portions of the flat flexible circuit (16) extending along opposing sides of the male body member (11) when the flexible circuit (16) is wrapped about the edge (B), the male body member (11) also having a dimension (T2) extending along a direction of insertion of the edge (B) into the first receptacle (D), the dimension (T2) extending along the direction of insertion being substantially greater than the thickness dimension (T1) for resisting deflection of the edge (B) in a direction opposite the direction of insertion during engagement between the first conductors (16) and the second conductors (21).

In regard to claims 30 and 37, Johnson et al discloses a second flat flexible circuit (21) (column 3, line 66) inserted into the first opening (F) of the second receptacle (E) of the adapter (C), the second flexible circuit (21) having the second conductors (on 21) engageable with the first conductors (on 16) (attachment 1).

In regard to claims 32 and 39-41, Johnson et al further discloses a female connecting device (C) including a receptacle (D) for receiving the male connector (A) inserted into the receptacle (D) and means (17) on the device (C) for removably positioning the second conductors (on 21, of the flat circuit 21) from exteriorly of the device (C) in engagement with the first conductors (on 16) of the flexible circuit (16) at the edge (B) of the male body member (11); the edge (B) about which the flat flexible circuit (16) is wrapped having a length dimension (L), the male body member (11) having a dimension (T2) extending along a direction

of insertion of the edge (B) into the receptacle (D), the dimension (T2) of the male body member (11) extending along the direction of insertion being at least equal or greater than of the edge length dimension (L) (attachment 1).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 26-29 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al (US5297968) in view of Perino et al (US6234820B1).

In regard to claims 26 and 33, Johnson et al lacks a relatively yieldable backing structure. However, Perino teaches the connector assembly including a relatively yieldable backing structure (370) on the male body member (150, 310) at the edge thereof beneath the flexible circuit (365) for resiliently biasing the first conductors of the circuit (365) (figure 3). It would have been obvious to one having ordinary skill at the time the invention was made to modify the connector assembly of Johnson by having a relatively yieldable backing structure as taught by Perino for having flexibility to the first conductor of the flexible circuit onto the adapter.

In regard to claims 27 and 34, Johnson et al lacks a longitudinal resilient strip. However, Perino teaches the body member (150) is elongated and the yieldable backing structure (370) comprises a longitudinal resilient strip along the edge (figure 3). It would have been obvious to one having ordinary skill at the time the invention was made to modify the connector assembly

of Johnson by having a longitudinal resilient strip as taught by Perino for increasing contact areas between the flexible circuit and the male connector body and adapter.

In regard to claims 28 and 35, Johnson et al lacks a position means. However, Perino teaches positioning means (345) on the male body member (150) for locating the flexible circuit wrapped about the edge of the body member (150) (figure 3). It would have been obvious to one having ordinary skill at the time the invention was made to modify the connector assembly of Johnson by having a positioning means as taught by Perino in order to fixedly hold the flexibly circuit onto the male body member.

In regard to claims 29 and 36, it would have been obvious to one having ordinary skill at the time the invention was made to modify the connector assembly of Johnson by having an adhesive as taught by Perino for having a good connection between the flexible circuit and the male body member.

9. Claims 31 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al (US5297968) in view of Kamono et al (US4973264).

In regard to claims 31 and 38, Johnson et al lacks a plurality of discrete electrical wires. However, Kamono teaches a plurality of discrete electrical wires (50) having second conductors (30) (figures 2-4). It would have been obvious to one having ordinary skill at the time the invention was made to modify the connector assembly of Johnson by having a plurality of discrete electrical wires as taught by Kamono to engage with the first conductor of the flexible conductor for having a different connection when the user needed.

*Conclusion*


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchi Nguyen whose telephone number is (571) 272-2012. The examiner can normally be reached on 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PCN

January 25, 2005

  
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